CENTRAL INTELLIGENCE AGENCY

# INFORMATION REPORT



SECRET
SECURITY INFORMATION

25X1

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| COUNTRY | Czechoslovakia | REPORT | |
| SUBJECT | Tire Cord Plant in Velka nad Velickou | DATE DISTR. | 3 June,1953 |
| | | NO. OF PAGES | 5 |
| DATE OF INFO. | | REQUIREMENT | 25X1 |
| PLACE ACQUIRED | | REFERENCES | |

This is UNEVALUATED Information 25X1

*THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.*
*THE APPRAISAL OF CONTENT IS TENTATIVE.*
*(FOR KEY SEE REVERSE)*

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1. The plant for production of tire cords in Velka nad Velickou /about 18 km. due east from Straznice, 4854N-1719E/ was built between 1947 and 1951 by the Svit National Enterprise, in Gottwaldov. Production started there in spring 1951. This plant was constructed on the model of the old Bata tire cord plant in Otrokovice /4912N-1732E/. The construction was headed by (fnu) Micek and (fnu) Berny, experts for cord production at the Bata Works. Berny was later appointed general manager of the new plant in Velka nad Velickou. The plant consisted of a one-story main production hall, 100 m. x 100 m. with a shed-type roof, and of a few auxiliary buildings.

2. The plant was equipped with ordinary cord twisting machines produced by the English firms Platt and Tweedale & Smalley. In addition, one double-cord twisting machine with a limited number of spindles was brought on trial. /A double-twist spindle of this machine is shown in Annex B, Figure C/. 25X1

3. viscose rayon yarn was the chief material used for production of tire cords in this plant, as the Bata plant in Otrokovice, which produced cotton yarn tire cords, had a large capacity and was able to meet the entire Czechoslovak demand for cotton cords. Moreover, Czechoslovakia suffered from shortages of cotton. The viscose rayon yarn was probably brought to the plant in Velka nad Velickou from Rudnik /in the Krkonose Mountains near Vrchlabi, 5038N-1536E/ or from Zavod miru, National Enterprise, in Bratislava, a new plant where viscose rayon yarn of 1,200 denier for tire cords was produced. 25X1

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(Note: Washington Distribution Indicated By "X"; Field Distribution By "#".)

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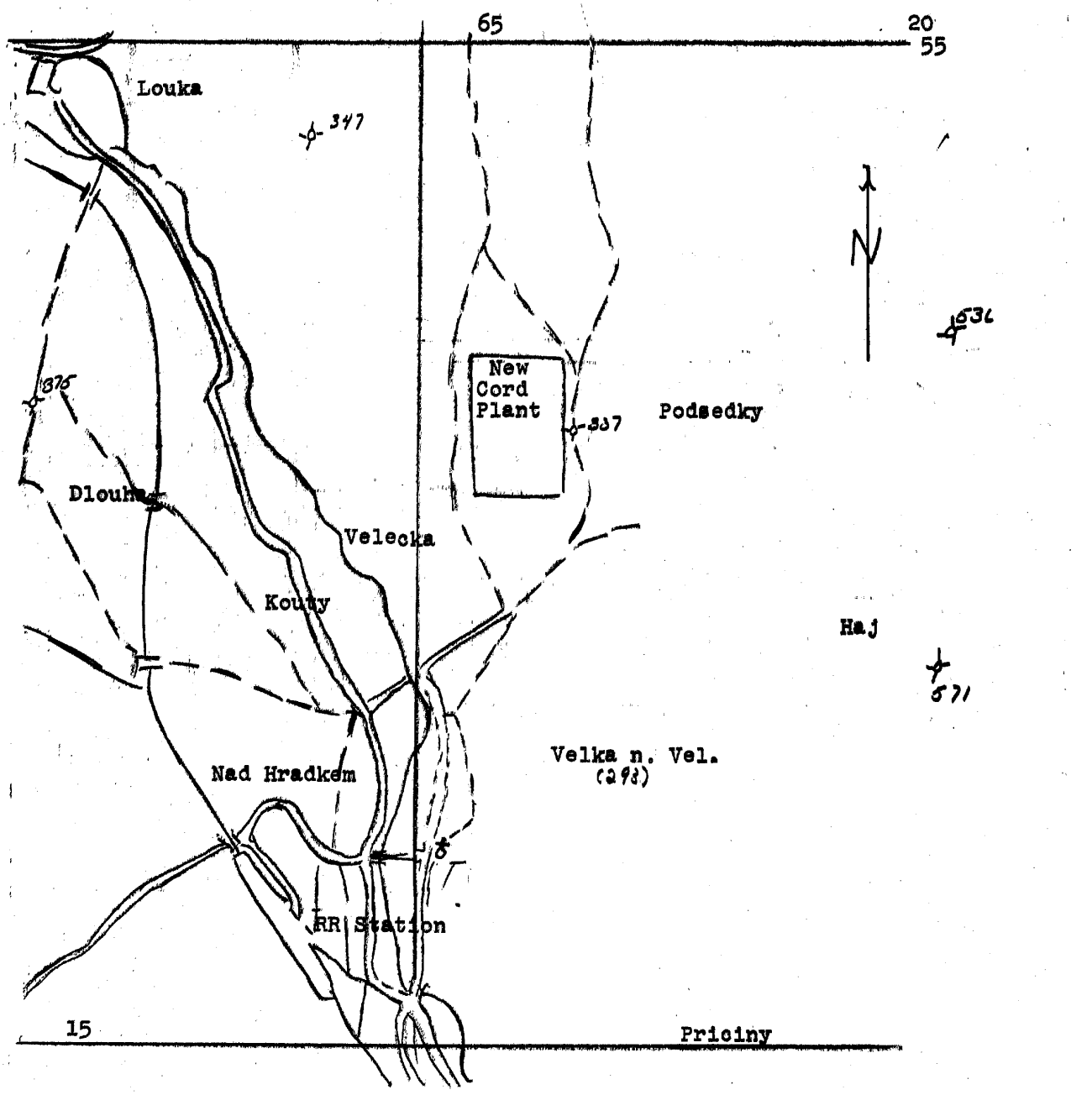
4. The viscose rayon yarn arrived at the cord plant spun on cones of a large diameter. Any cotton yarn which was used at the plant first would be processed in a cotton spinning mill and spun from spinning spools to cones on a high-speed spinning machine of the Rottokoner type. One process was used both for cotton yarn and viscose rayon yarn at the tire cord plant. The yarn was wound from the cones onto the beams of a high-speed warping machine of the Schlafthorst type to form rolls 1,300 mm. and 500 mm. long. The rolls of yarn were then processed on twisting machines. There were two kinds of twisting machines, and the yarn had to be processed on both kinds of machines in succession. Each twisting machine twisted two rolls of yarn at a time. The first one, a single-end cord twisting machine /Annex B, Fig. A/ twisted every single yarn separately, making Z-shaped twists. The second twisting machine, a twisting and doubling machine /Annex B, Fig. B/, joined and twisted two or three single yarns together, making S-shaped twists. These cords on spools were woven on looms of the Northrop type into cord fabrics. The cord fabrics were wrapped in paper and sent to tire factories in Gottwaldov and Puchov /4908N-1820E/.

5. For production of tire cords from viscose rayon yarn, a temperature of 20°C and humidity of 60% were needed in the production hall. These special atmospheric conditions were achieved by means of air conditioning equipment manufactured at the Svit plant in Gottwaldov. The ventilators for this equipment were supplied by the North Bohemian Fat Factories, National Enterprise (Severoceske tukove zavody n.p.), formerly the Schicht Works, in Usti nad Labem.

Enclosure A: New Cord Plant at Velka n. Velickou
B: [redacted] Sketch of Twisting Machines 25X1

Annex A SECRET/SECURITY INFORMATION [redacted] 25X1




New Cord Plant at Velka n. Velickou

[redacted] Sketch scale 1:25.000 25X1

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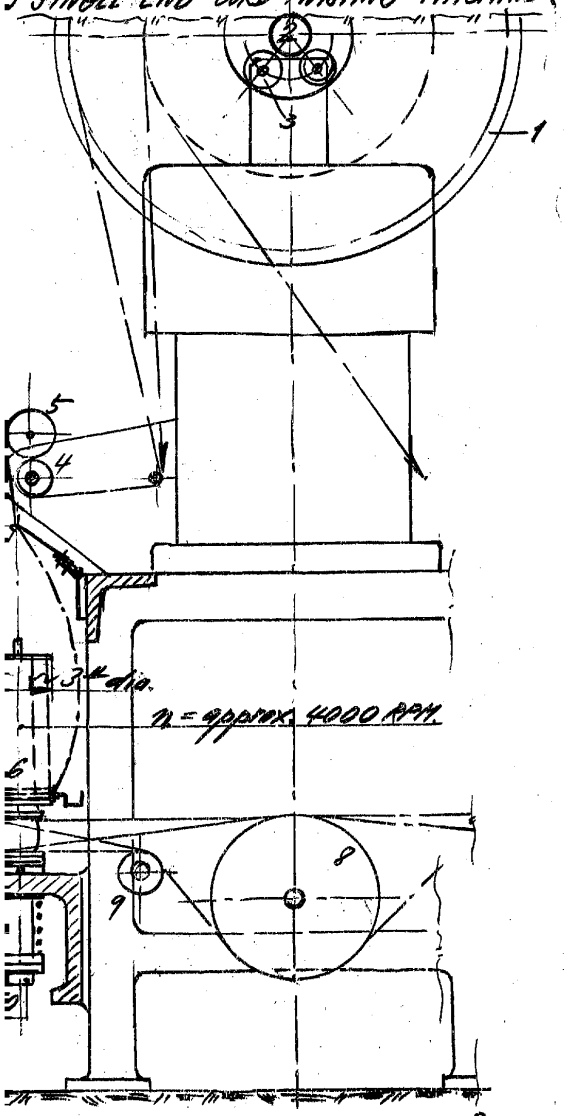
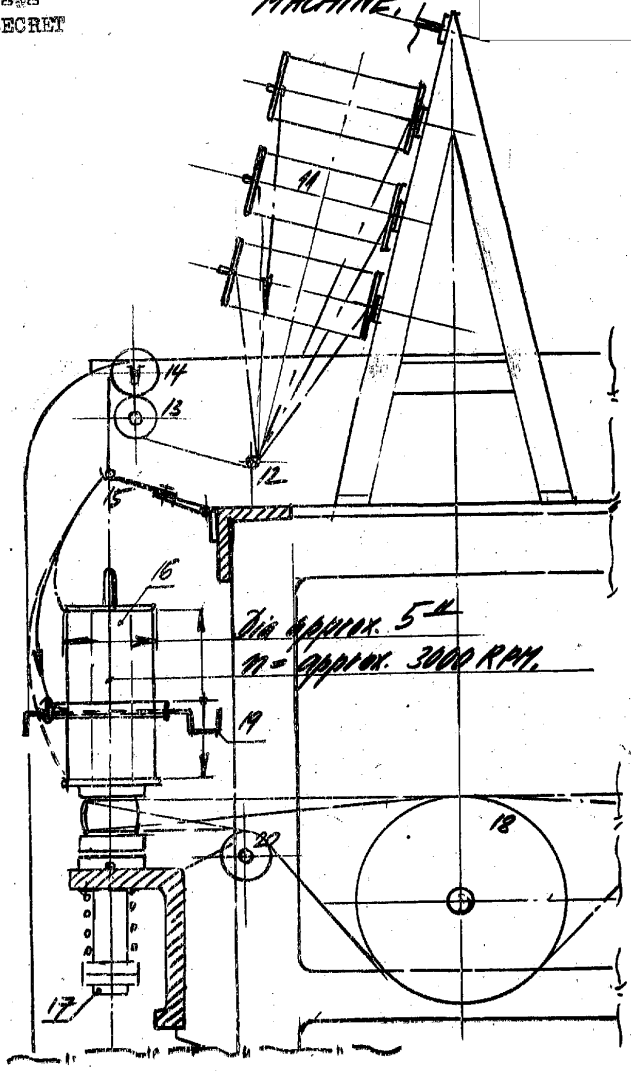
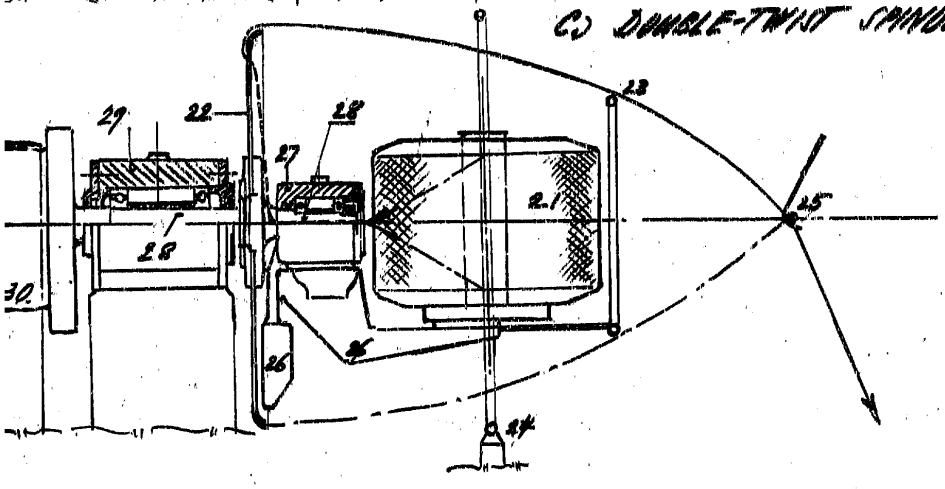
a) SINGLE-END CORD TWISTING MACHINE.




b) CORD TWISTING & DOUBLING MACHINE.




c) DOUBLE-TWIST SPINDLE.




ANNEX B

25X1

Sketch of Twisting Machines

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Legend

a. Single-end cord twisting machine

1. Beam with rayon or cotton yarn
2. Shaft
3. Ball bearings
4. Rollers for withdrawing the yarn
5. Rollers for drawing the yarn near
6. Spool
7. Pigtail
8. Spindle driving drum
9. Driving pulley
10. Roller bearing spindle

b. Cord doubling and twisting machine

11. Spools with twisted single yarn
12. Rod
13. Rollers for withdrawing the yarn
14. Rollers for drawing the yarn near
15. Pigtail
16. Spool
17. Spindle
18. Spindle driving drum
19. Ring rail
20. Driving pulley

c. Double - twist spindle

21. Stationary spool
22. Rotating disc with an eyelet
23. Ring preventing the twisted yarn from becoming entangled with the spool
24. Ring preventing the rayon balloon from overrunning
25. Pigtail
26. Weight arm resting through bearing assembly (Point #27) on the spindle (Point #28)
27. Bearing assembly
28. Spindle
29. Spindle bearing
30. Driving pulley.